

CLAIMS

1. A work processing method in a machine tool having a main shaft movable in at least a horizontally longitudinal direction at a position on one side of a foundation comprising;
 - 5 providing a vertical rotation support shaft to a position of the other side opposite to said one side of said foundation,
 - fixing a lateral stand having a slanting surface of a fixed angle on a top portion of said vertical rotation support shaft, said slanting surface being gradually descended toward the main shaft side when sitting opposite to the main shaft,
 - 10 providing a work grip rotation feed mechanism portion for rotating a bar-like work on the slanting surface of said lateral stand,
 - horizontally separating an axis of the vertical rotation support shaft and an axis of the work grip rotation feed mechanism portion by a required distance, and
 - varying a position of the lateral stand by rotating the vertical rotation support shaft
 - 15 between a case where the bar-like work is attached to and removed from the work grip rotation feed mechanism portion and a case where the bar-like work is processed by longitudinal displacement of the main shaft.
2. A work processing method in a machine tool as claimed in claim 1,
 - 20 wherein the axis of the vertical rotation support shaft and the axis of the work grip rotation feed mechanism portion are arranged so that the latter is separated toward the main shaft side when the lateral stand sits opposite to the main shaft.
3. A processing jig for performing a work processing method in a machine tool claimed in claim 1
 - 25 or claim 2,
 - wherein the slanting surface of the lateral stand is inclined against a horizontal surface by an angle of 15 degrees or more.

4. A support device for work processing in a machine tool having a main shaft movable in at least a horizontally longitudinal direction at a position on one side of a foundation comprising;

5 a vertical rotation support shaft provided to a position of the other side opposite to one side of said foundation,

a lateral stand fixed on a top portion of said vertical rotation support shaft, having a slanting surface of a fixed angle gradually descending toward the main shaft side when sitting opposite to the main shaft,

10 a work grip rotation feed mechanism portion for rotating a bar-like work provided on the slanting surface of said lateral stand, and

wherein an axis of the vertical rotation support shaft and an axis of the work grip rotation feed mechanism portion are horizontally separated by a required distance, and a position of the lateral stand is varied by rotating the vertical rotation support shaft between a case where the bar-like work is attached to and removed from the work grip rotation feed mechanism portion and a case where the bar-like work is processed by longitudinal displacement of the main shaft.

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5. A support device for work processing as claimed in claim 4,

wherein the slanting surface of the lateral stand is inclined against a horizontal surface by an angle of 15 degrees or more.

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6. A support device for work processing as claimed in claim 4 or claim 5,

wherein the lateral stand comprises a horizontal bottom surface portion, a standing surface portion stood from one end of said bottom surface portion, a slanting surface portion arranged between the bottom surface portion and the standing surface portion, and a space surrounded by said bottom surface portion, said standing surface portion and said slanting surface portion,

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wherein required members such as cables and pipes for the work grip rotation feed

mechanism portion are arranged in said the space.